

Sandia LabNews

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Sandia National Laboratories

Energy & environment

the Lockheed Martin audit team was that controls provided at Sandia/New Mexico were adequate and operating effectively. **The audit team identified eight "notable" programs and three "excellent" programs.** The excellent programs — Ergonomics, Title V Permitting Strategy, and Pressure Safety — are candidates for sharing as models among the rest of Lockheed Martin. (7700)

Worksite evaluations (WSEs) by Sandia's Corporate Ergonomics Group (CEG) have risen from 300 in 1992 to more than 2,000 in 1995. The CEG consists of Certified Professional Ergonomists and professionally trained technicians from the Safety, Occupational Medicine, Industrial Hygiene, Facilities Planning, ES&H Training, and Human Factors departments. Sandia is helping DOE field offices start WSE programs and has assumed a leadership role in promoting the sharing of successful methods with other DOE laboratories. (3300, 7700, 7800, 7900)

Sandia led a multilaboratory, multiagency team in a successful flight series over the DOE Cloud and Radiation Testbed site in northern Oklahoma that has **obtained unprecedented data** that will make possible improved understanding of global climate change. The key innovation was simultaneous measurements of energy above and below clouds with aircraft position controlled to within the length of a football field while "stacked" one above the other separated by more than 40,000 feet in altitude. This work was supported by the Strategic Environmental Research and Development Program and DOE. (2600, 5300, 5700, 8100, 8200, 8400, 8500)

Solid propellant from 200 of Sandia's excess rocket motors was recently used to demonstrate a **recycling alternative to hazardous waste disposal.** The propellant was incorporated into a commercial blasting agent that has numerous mining applications. The cryocycling process, developed in departments 8716, 8742, 8113, and 8745, was used to prepare the propellant for recycling. A proprietary



CLOUD DANCER — Specially instrumented Twin Otter aircraft gathers data on global climate change.

mixture of water gel explosive with more than two tons of cryocycled propellant produced a highly effective blasting agent that was demonstrated in an operating rock quarry. (7500, 8100, 8700)

We conducted a two-week field demonstration of an **advanced, laser-based, metal-emissions monitor** at the EPA's Incineration Research Facility in Jefferson, Ark. The remotely operated monitor measured metals in the post-scrubber effluent from an incinerator processing waste containing 14 toxic metals. Antimony, barium, and beryllium were detected at significant (parts-per-billion) levels. Results for these metals compare favorably with laboratory analysis of samples that were collected during the tests. (8100, 8300, 8400, 8700)

In June, a group of Albuquerque area citizens **convened for the first time as a Citizens' Advisory Board** for Sandia and Inhalation Toxicology Research Institute issues relating to environmental restoration and waste management. Sandians from organizations 12650 and 7500 helped organize the board. The board has organized into committees and is dealing with issues of future land use on Kirtland Air Force Base and the Labs' proposal to construct a permanent facility for storage, treatment, and disposal of environmental remediation wastes. (7500, 12650)